

## REMARKS

Claims 1-23, 27, 34 and 45 are pending in the application.

### Rejections under 35 U.S.C. § 102(b)

Claims 1-3, 5-7, 12-13, 15, 19, 23, 27, 34 and 35 have been rejected under 35 U.S.C. §102(b) as being unpatentable over U.S. Patent No. 4,214,993 issued to Forsythe, Jr. et al. (hereinafter "Forsythe"). Applicants traverse this rejection for a number of reasons.

Firstly, the Office ignores a number of limitations in the claims and on pages 3-4 of the Office Action states:

While features of an apparatus may be recited either structurally or functionally claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function.

A functional limitation is an attempt to define something by what it does, rather than by what it is. MPEP §2173.05(g). There is nothing inherently wrong with defining some part of an invention in functional terms. MPEP §2173.05(g). Functional language does not, in and of itself, render a claim improper. MPEP §2173.05(g). *In re Swinehart*, 439 F.2d 210, 169 U.S.P.Q. 226 (CCPA 1971). The Office has not afforded any patentable weight to the following claim limitations:

1. a first bearing surface *adapted to rest against the rim of a first collection tube;*
2. *where an outer diameter of the body portion directly below the first bearing surface is adapted to fit securely with the first collection tube;*
3. a second bearing surface *adapted to rest against the rim of a second collection tube;*

4. where an outer diameter of the body portion directly below the second bearing surface is adapted to fit securely with the second collection tube; and
5. where the opening of the first collection tube is greater than the opening of the second collection tube.

These claim limitation cannot be ignored. To anticipate a claim, the reference must teach every element of the claim. MPEP §2131. Patentability is determined for the invention as claimed, with all its limitations. It is improper to delete explicit limitations from the claim in order to find the residue in the prior art. Because Forsythe does not disclose, teach or suggest at least one of the above claim limitations, it does not anticipate the claimed invention.

Furthermore, a patent applicant is free to recite features of an apparatus either structurally or functionally. *In re Swinehart*, 439 F.2d 210, 212, 169 U.S.P.Q. 226, 228 (CCPA 1971). Applicants argue that the above claim limitations are not recitations of use but limitations that serve to precisely define present structural attributes. For instance, the present filter column is configured structurally in such a manner so as to fit securely or rest against a tube in a particular manner as claimed. In *In re Venezia*, the Court held that limitations such as “members adapted to be positioned” and “portions...being resiliently dilatable whereby said housing may be slidably positioned” serve to precisely define structural attributes. *In re Venezia*, 530 F.2d 956, 189 U.S.P.Q. 149 (CCPA 1976).

In the present Office Action, the Office states that:

A claim containing a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim.

Applicants traverse this statement because it is not an accurate statement about the claimed invention. The so-called functional limitations in the present invention are not recitations with respect to the manner in which the claimed apparatus is intended to be employed. Instead, the

so-called functional claim limitations define the structure of each of the individual parts of the invention which taken as a whole comprise the claimed invention. For example, the claim limitation of “adapted to fit securely” defines the structural attribute or configuration of the antecedent filter column component. Each of the bearing surfaces and body portions are limited by their “adapted to” recitations. These limitations then taken together define the claimed invention as a whole. How this claimed invention is then subsequently employed or its manner of use is absent from the claim. Hence, the limitations in the present claim are different from a manner of use recitation which would have no impact on the structural configuration if employed in the instant claims. The exercise of hindsight is not anticipation. The law of anticipation requires that the same invention, with all the limitations of the claims, existed in the prior art. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920-21 (Fed. Cir. 1989). Therefore, because the present claims do not include recitations of method of employment of manner of use clauses, the above limitations cannot be ignored and must be afforded patentable weight. As such, the claims are not anticipated by Forsythe.

Furthermore, applicants contend that the so-called functional limitations in the claims are not disclosed, taught or suggested nor inherent characteristics in Forsythe. For example, independent claim 1 recites a first bearing surface adapted to rest against a first tube and a second bearing surface adapted to rest against a second tube. Other independent claims 8 and 21 recite a filter column having a body with bearing surfaces adapted to seat on at least two collection tubes. Forsythe does not disclose, teach or suggest a filter column having a body with bearing surfaces adapted to seat on at least two collection tubes nor does Forsythe disclose, teach or suggest a first bearing surface resting against a first collection tube and a second bearing surface resting against a second collection tube. Instead, the cartridge 16 in Forsythe mates with only one container 32 at middle portion 18. In Forsythe, it is the first container 32, not the cartridge 16, that rests against the second container 36 as shown in FIG. 1. In other words, Forsythe discloses only one container (collection tube) 32 bearing on the cartridge (column) 16. Forsythe does not disclose, teach, or suggest the second container 36 bearing on cartridge 16.

Instead, the second container 36 bears on the first container 32. In Forsythe, the first container 32 stacks onto the second container 36. The bearing surface against which the second container 36 rests is located on the first container 32 and not on the cartridge 16 as claimed in the present invention. This distinction is important and illustrates how different Forsythe is from the present invention. It also illustrates that it is not an inherent characteristic of Forsythe to have it be configured structurally to have a second container bear on the cartridge. Because Forsythe does not disclose, teach or suggest a filter column with bearing surfaces adapted to seat on two collection tubes, independent claims and their respective dependent claims are not anticipated and not obvious in light of the prior art.

In another example, independent claims recite a filtration column adapted to seat on collection tubes having differently-sized openings or the opening of the first collection tube being greater than the opening of the second collection tube. To anticipate a claim, the reference must teach every element of the claim. MPEP §2131. Forsythe does not anticipate the claim limitation of a filtration column adapted to seat on collection tubes having differently-sized openings or the opening of the first collection tube being greater than the opening of the second collection tube. In contrast, Forsythe discloses a cartridge 16 that mates with a first container 32 which in turn then mates with a second container 36. Containers 32 and 36 do not have differently-sized openings. The openings of containers 32 and 36 are of the same or substantially the same size. This is evidenced by the fact that containers 32 and 36 have upper portions (element 44 on container 36) sized to receive the same cap 10. “The first cup 32 has an enlarged upper portion which has the same interior diameter as the upper portion 20 of the extraction cartridge such that it may accommodate the same cap 10 if desired.” Forsythe, col. 3 lines 41-44. The second container 36 also includes an upper portion to receive the same sized cap 10. “This enlarged upper portion 44 has an interior diameter which is substantially the same as those of the enlarged portions of the extraction cartridge and the first container. In this manner the cap 10 may be used interchangeably with either of these three units.” Forsythe, col. 3, lines 53-58. It is clear that the first container 32 and the second container 36 have the same-

sized openings to receive the same-sized cap 10. Therefore, Forsythe does not disclose, teach or suggest a filtration column adapted to seat on collection tubes of different sizes or the opening of the first collection tube being greater than the opening of the second collection tube. Therefore, Forsythe does not anticipate the present invention.

For the reasons mentioned above, Forsythe does not anticipate all the limitation of independent claims nor their respective dependent claims. Therefore, applicants believe that claims 1 and 26 and their respective dependent claims are in a condition for allowance.

### **Rejections under 35 U.S.C. § 103(a)**

Claims 4, 10-11, 14, 16-18 and 20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,214,993 issued to Forsythe, Jr. et al. (hereinafter “Forsythe”) in combination with BIO-RAD, Life Science Research Products Catalog (1993), pages 57 and 60-63 (hereinafter “BIO-RAD”). Applicants traverse this rejection. In order to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. MPEP §2143.

The third criteria listed above states that the prior art references must teach or suggest all the claim limitations in order to establish a prima facie case of obviousness. MPEP §2143. Applicants believe that this criteria is not met for the reasons discussed above with respect to the rejection under §102(b). Applicants maintain that the prior art references do not disclose, teach or suggest all of the claim limitations of independent claims which are also limitations included in the dependent claims rejected under §103(a). In particular, the prior art does not disclose, teach or suggest a filter column adapted to seat on at least two collection tubes having differently-sized openings or a bearing surface adapted to rest on a first collection tube and a second bearing surface adapted to rest on a second collection tube as described in the claims

andas discussed above with respect to the rejection under §102(b). Therefore, the claims are nonobvious and in a condition for allowance.

In addition, the prior art does not disclose, teach or suggest the claim limitations of a hinge as in claim 10; a hinge being offset to the first end of the body as in claim 11; a second body portion that seats within a 1.5-2.0 mL centrifuge tube as in claim 14; a third body portion that is seats in a 0.5mL tube as in claim 17; the second body portion having an outer diameter between 0.32 and 0.37in. as in claim 16; the third body portion having an outer diameter between 0.25 and 0.27in. as in claim 18; and a filter column having microliter capacity of greater than 200 mL, a filter area greater than 1000m<sup>2</sup> and a height from a top of said body to a top of said second bearing surface less than 0.5in. as in claims 20. The claimed dimensions are significant because the filter column is designed such that it mates with various sizes of standardized microcentrifuge tubes that are now currently in large-scale production. This sizing allows for users to work with existing tubes without necessitating the purchase or use of specialized microcentrifuge tubes. Other dimensions are significant as claimed because the filter column and microcentrifuge tube combination when mated together must be able to fit inside standard centrifuge apparatuses. The prior art does not appreciate, disclose, suggest or teach this advantage.

Furthermore, there is no motivation in Forsythe or in BIO-RAD or available to one having ordinary skill in the art to modify the filter column in Forsythe or BIO-RAD to accord with the claimed invention. In fact, Forsythe teaches away from the claimed modification by disclosing a second container that does not bear upon the filter column but instead bears upon the first container. For these, reasons the prior art does not disclose, teach or suggest the claimed invention and therefore, the claimed invention is not obvious.

In view of the foregoing remarks, applicants respectfully submit that claims 1 and 26 and their respective dependent claims are nonobvious and not anticipated by the prior art. For these reasons, applicants believe that the application is in a condition for allowance, and action toward that end is earnestly solicited.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time.

**Un-Examined Claims 8, 9, 21 and 22**

In paragraphs 3, 4, 5, 7, 8, 10 and 11 of the Office Action, the Office fails to address claims 8, 9, 21 and 22 and therefore, applicants believed that these claims have not been examined. In light of the statement in paragraph 11, these claims are also not allowed. In the absence of clarification or allowance and because these claims have not been examined or allowed, the next action cannot be made final.

**Request To Enter Reply After Final**

In response to the Final Office Action (January 15, 2004), applicants filed a Reply on March 15, 2004. This Reply was considered by the Examiner in an Advisory Action but was not entered because it was not deemed to place the application in better form for appeal. Applicants respectfully request entry of the Reply dated March 15, 2004 in its entirety including the amendments and arguments contained therein as they are responsive to the rejections contained in the Final Office Action and an amendment or new argument is a submission requirement for proper RCE practice. MPEP §706.07(h). On the RCE transmittal, applicants have indicated that the previously submitted March 15, 2004 amendment be entered as the submission requirement.

In view of the foregoing remarks, applicants respectfully submit that claims 1 and 26 and their respective dependent claims are nonobvious and not anticipated by the prior art. For these reasons, applicants believe that the application is in a condition for allowance, and action toward that end is earnestly solicited.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time.

Respectfully submitted,

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